
PROPOSED PLAN
Non-Time-Critical Removal Action
NEX Garage Septic Tank Site
COMNAVMARIANAS, Guam

August 2002

U.S. Navy Announces Proposed Plan

The U.S. Navy invites the public to comment on the Proposed Plan for the NEX Garage Septic Tank Site, located at Commander U.S. Naval Forces Marianas (COMNAVMARIANAS) in the Apra Harbor area in the western region of the island of Guam. The subsurface septic tank is located approximately 700 feet south of the NEX Garage (Building 151) and 1000 feet east of Agat Bay. A sewer pipeline connected the NEX Garage with the septic tank and Agat Bay. The buried pipeline extends through the wetlands situated to the south of the septic tank and enters Agat Bay perpendicular to the coastline. Cleanup activities called removal actions were implemented at the Site to achieve the following goals and objectives:

- Reduce the potential for the release of contaminants within the septic tank;
- Reduce the potential for the release of sediment within the sewer pipeline; and,
- Reduce the potential for the sewer pipeline to serve as a drainage conduit from the garage area to the septic tank and then into Agat Bay.

Removal action activities consisted of cleaning, removing and disposing of the septic tank and its contents; cleaning, removing and disposing of 860 feet of associated piping; and cleaning and sealing 440 feet of associated piping with grout. Removal action construction activities were initiated on January 8, 2001, and completed on June 29, 2001.

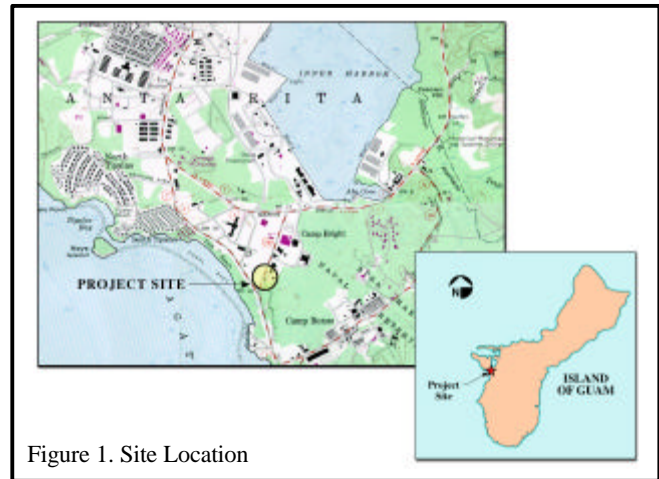


Figure 1. Site Location

Site Background

The NEX Garage, Building 151, was constructed in 1955 to serve as an automobile repair and maintenance facility for vehicles belonging to military personnel and their dependents. From 1955 to 1975, waste oils, automotive fluids, and cleaning solvents were discarded to a waste oil underground storage tank (UST) located approximately 100 feet southeast of Building 151. In 1975, use of the waste oil UST was discontinued and an oil/water separator was installed at the garage. During UST removal activities performed in 1987, a previously undiscovered pipe was exposed and it appeared to be connected to the concrete septic tank. During the 1996 Remedial Investigation (RI), the connection from the UST to the septic tank and the location of the pipeline from the septic tank to Agat Bay were confirmed using trenched location along the sewer pipeline. Sampling conducted during the 1991 Site Inspection (SI) and 1996 RI indicated elevated concentration of total petroleum hydrocarbons (TPH), volatile organic compounds (VOCs), polynuclear aromatic hydrocarbons (PAHs), pesticides, polychlorinated biphenyls (PCBs), and metals in various media at the Site.

Site Characteristics

Sources of contamination at the NEX Garage Septic Tank Site include the former waste oil UST, concrete septic tank, and the sewer pipeline that connected these two structures with each other and Agat Bay. Waste products may have flowed from the UST to the septic tank and then into Agat Bay via the sewer pipeline. Surface and subsurface contamination at the Site have been investigated during previous field investigations: Initial Assessment Study (1983), Site Inspection (1991), Current Conditions Report (1994), Remedial Investigation (1996) and Engineering Evaluation/Cost Analysis (1997). These reports reside in the Administrative Record (see below).

Site contamination included: (1) the soils surrounding the waste oil UST; (2) soils surrounding the septic tank; (3) septic tank contents; (4) soils adjacent to the pipeline; (5) marine and wetland sediments; and, (6) groundwater throughout the Site. The chemicals of potential concern (COPCs) detected during the field investigations consisted of TPHs, VOCs, PAHs, pesticides, and PCBs. Several metals were also detected above background concentrations. Detailed descriptions of the field investigation and evaluation activities conducted at the NEX Garage Septic Tank Site are available in the Administrative Record compiled for the Site.

Location of Administrative Records



Nieves M. Flores Memorial Library

254 Martyr Street

Hagatna, Guam 96910

Phone: (671) 475-4751, 4752, 4753, or 4754

Hours: Mon, Wed, Fri: 9:30 a.m. to 6:00 p.m.

Tues, Thurs: 9:30 a.m. to 8:00 p.m.

Sat: 10:00 a.m. to 4:00 p.m.

Sun: 12:00 p.m. to 4:00 p.m.

Contact: Ms. Christine Scott-Smith

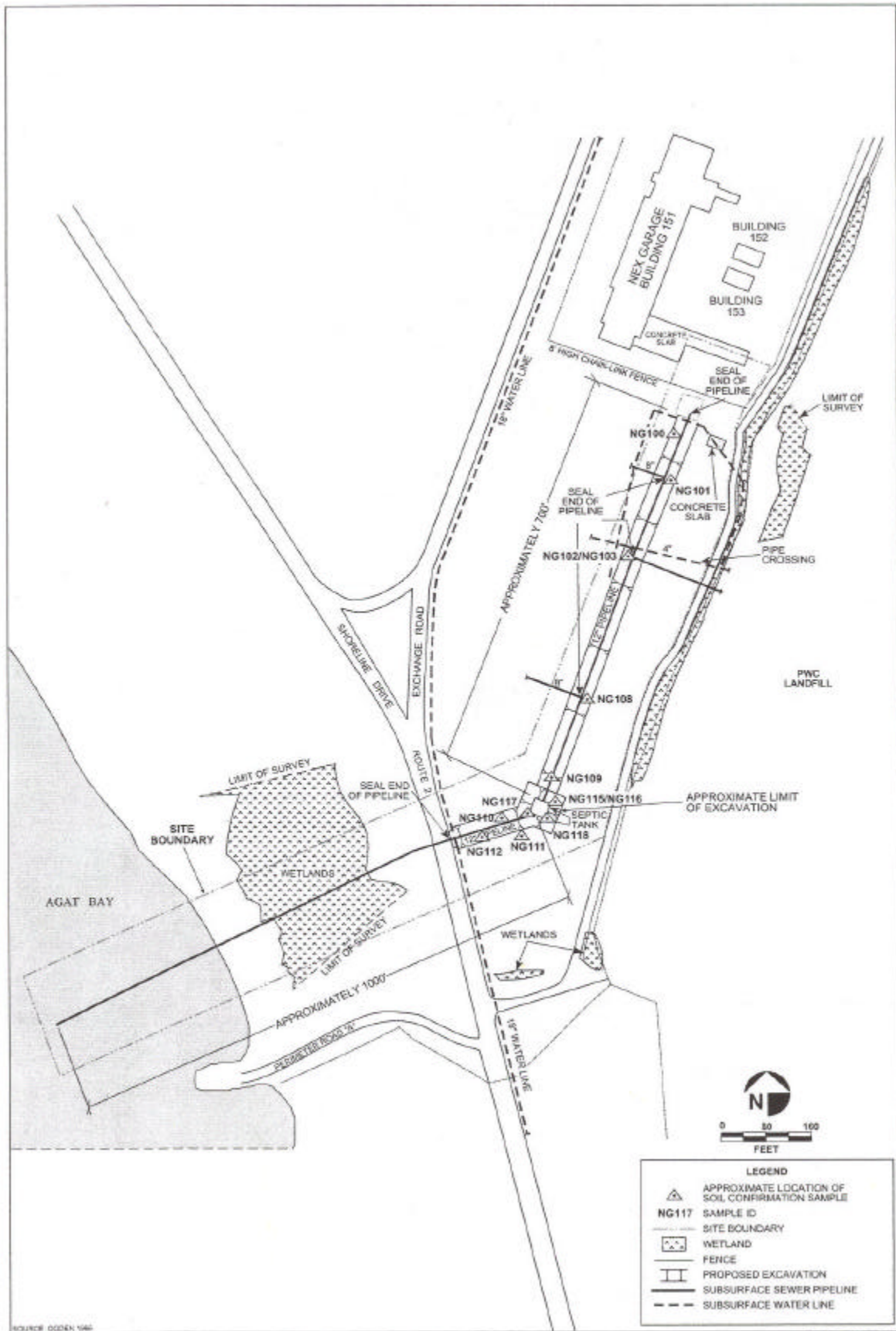
Summary of Site Risks

Human health and ecological risk assessments (HHRA and ERA) were performed as part of the RI in 1996 to evaluate the potential threat to human health and the environment in the absence of any remedial response action. The HHRA concluded that existing environmental contamination at the site poses no risk to human health because there are no complete exposure pathways. The ERA concluded that, although ecological receptors may be exposed to contaminants, especially within wetland and marine sediments, the probability for adverse biological effects appeared to be low, and no significant biological risk was found based on site-related contaminants. The contaminants of most concern, organochlorine pesticides in sediments in the wetland areas to the east of the Site, are not considered to be attributed to the Site. However, a non-time critical removal action was recommended to reduce the potential for contaminant releases from subsurface structures at the NEX Garage Septic Tank Site.

Removal Action

The removal action activities were implemented at the NEX Garage Septic Tank Site included cleaning, removal, and/or sealing in-place of the septic tank and sewer pipeline. These activities were conducted to reduce the potential for future releases from the site. Construction activities were initiated on January 8, 2001 and completed on June 29, 2001. The removal action construction activities consisted of the following tasks:

- removal of the oily materials in the septic tank;
- cleaning of the septic tank and sewer pipeline;



Site Plan
NEX Garage Septic Tank Site



Photo 1: Septic Tank Excavation, February 2001

Photo 2: Trench Excavation, February 2001

- removal of the septic tank and the sewer pipeline section from the NEX Garage to the eastern edge of Route 2;
- in-place sealing of the sewer pipeline section passing underneath and west of Route 2 to Agat Bay;
- abandonment of eight (8) monitoring wells, which were installed during field investigations of the septic tank;
- site restoration; and,
- appropriately disposing of waste streams generated by removal action activities.

Following the completion of removal action activities, a Final Site Inspection was conducted on June 28, 2001. Revegetation of the Site was determined to be not warranted due to the rapid vegetation regrowth that occurs in Guam. Erosion is considered a low risk because of the relatively flat topography of the Site. A detailed description of the removal action construction activities is provided in the report entitled "Final Remediation Verification Report, Non-Time-Critical Removal Action, Naval Exchange Garage Septic Site, COMNAVMARIANAS, Guam" prepared by IT Corporation, dated April 2002.



Photo 3: Prior to Initiation of Removal Action, January 2001



Photo 4: Completion of Removal Action, June 2001

Confirmation Sampling

A total of 12 samples were collected, January through March 2001, from the septic tank and sewer pipeline excavation areas: three (3) soil samples and one (1) field duplicate sample from the bottom of the septic tank excavation, and seven (7) soil samples and one (1) field duplicate from the bottom of the excavation trench along the sewer pipeline east of Route 2 (see Figure 2). A sample of the olive green sand (NG110), which was used as pipe bedding material for Pipe #31, was also collected for further analysis and characterization of the sand material.

Based on the conclusions of the HHRA and ERA, no cleanup criteria were established for the Site. However, soil cleanup goals specified by Guam UST regulations and Industrial Preliminary Remediation Goals (PRGs) were established for the COPCs identified at the Site to conduct confirmation sampling after completion of removal action activities. These cleanup goals were determined during the preparation of the Field Sampling Plan for the confirmation sampling program. This program was developed to collect and analyze soil samples from the excavation bottom to provide documentation of existing site conditions, and to establish a baseline of site characteristics and background information for any future activities conducted at the NEX Garage Septic Tank Site.

Analytical testing results indicate that Guam UST criteria and industrial PRGs were not exceeded for the COPCs at the Site. One metal (arsenic) in sample NG111 was detected above the Industrial Soil PRG for arsenic with cancer endpoint (concentration was significantly below the Industrial Soil PRG for arsenic with noncancer endpoint). The analytical results for NG110 indicated that the green sand material did not exceed the Industrial PRGs for the COPCs; however, one metal (chromium) was detected above the Industrial Soil PRG.

In both locations, the soils and green sand materials are covered by a minimum of 3 feet of overburden soil and are not exposed at the surface of the Site, thus the chemicals do not present a direct exposure pathway. The green sand serves as piping bedding material to support Pipe #31, which is an active water line located above Pipe #1. The removal of the materials would undermine the integrity and stability of Pipe #31. Therefore, based on results of analytical testing for COPCs and that no human health or ecological risks are identified at the Site, the implemented removal action activities have achieved the established removal action goals and objectives, and the potential for future releases from the Site has been reduced.

No Further Action at the NEX Garage Septic Tank Site



Community Participation Tell Us What You Think

No further action is appropriate for sites where no current or potential future unacceptable risks to human health or the environment exists. The removal action activities for the NEX Garage Septic Tank Site have been performed in accordance with the requirements and performance standards specified in the Final Site Work Plan. The removal action goals and objectives established for the Site have been achieved.

- The removal of the septic tank and its contents, and the removal and/or cleaning of the associated sewer pipeline have reduced the potential of future releases from the NEX Garage Septic Tank Site. The remaining in-place piping system has been sealed with grout. No unacceptable human health or ecological risk was identified at the Site.
- The removal action as documented in the Final Remediation Verification Report and the Closure Report for the Site is considered complete and no other removal actions are required at the NEX Garage Septic Tank Site.

The Site is recommended to be closed with "No Further Response Action Planned".

The Navy encourages the public to review and comment on this Proposed Plan. Information which describes all work conducted at the Site is available in the Administrative Record for the Site, which is located at the Nieves M. Flores Memorial Library, Hagatna, Guam (see Page 2). Public comments will be accepted from August 16, 2002 to September 16, 2002. Please submit written comments to Ms. Michelle Yoshioka at the address below. Written comments must be postmarked by September 16, 2002. The public comment period maybe extended up to 30 days by submitting a request for an extension in writing to the Navy by September 9, 2002.

Community members may also submit oral and written comments on the Proposed Plan at the Restoration Advisory Board Meeting to be held at 7:00 pm on August 29, 2002 at Hyatt Regency Hotel Ballroom. Representatives from the Navy and GEPA will be present to answer questions and discuss the removal action activities conducted at the NEX Garage Septic Tank Site. A Decision Document will be issued to respond to public comments and document the final decision.

CONTACTS

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Glossary

Administrative Record: A file containing all reports, studies, evaluations, plans, and other information relating to the Site.

Chemicals of Potential Concern (COPCs): Chemicals in soils, surface water or groundwater that may warrant concern because of their contribution to a potential human health risk or ecological risk, or concentrations exceed Preliminary Remediation Goals (PRGs) or naturally occurring background concentrations.

Preliminary Remediation Goals (PRGs): Allowable concentrations of common environmental pollutants and potential respective health risks. PRGs are compiled by Region IX of the USEPA as an initial guide to evaluating potential health risk posed by site contaminants.

Proposed Plan: A document that reviews site history and characteristics, site risks, summaries the removal action implemented, and solicits public comments.

Remedial Investigation (RI): The methodology established by USEPA for determining the nature and extent of contamination at a Site and the risks posed by the presence of that contamination.

Remediation Verification Report: A report which documents that contaminated materials have been removed from the site and that the site is safe for current and future use.

Removal Action: A cleanup action performed to remove contaminated materials from the environment.

Risk Assessment: A study conducted as part of a remedial investigation that describes the risk posed to human health or the environment due to exposure to contaminants present in the air, soil, surface water or groundwater.

References

- AMEC Earth and Environmental, 2002. Final Closure Report for NEX Garage Septic Tank Site, COMNAVMARIANAS, Guam. June 2002.
- Guam Environmental Protection Agency (GEPA), 1991. Underground Storage Tank Regulations. Unpublished, nonpromulgated.
- IT Corporation, 2000. Final Site Work Plan, Non-Time Critical Removal Action, Naval Exchange Garage Septic Tank Site, COMNAVMARIANAS, Guam. December 2000.
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- Ogden Environmental and Energy Services Co., Inc., 1996. Remedial Investigation, Dry Cleaning Shop, NEX Garage Waste Oil Tank Site, USS Proteus Fire Fighting Training Area, Orote Landfill Site. February 1996.
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- Ogden Environmental and Energy Services Co., Inc., 2000. Field Sampling Plan for Post-Removal Confirmation Sampling at NEX Garage Septic Tank Site, COMNAVMARIANAS, Guam. August 2000.
- Ogden Environmental and Energy Services Co., Inc., 2000c. Final Quality Assurance Project Plan for NEX Garage Septic Tank Site, COMNAVMARIANAS, Guam. December 2000.
- U.S. Environmental Protection Agency (USEPA), 1993. Guidance on Conducting Non-Time Critical Removal Action Under CERCLA. EPA-540-R-93-057. August 1993.